

# PATENT COOPERATION TREATY

REC'D 26 JUL 2005

WIPO

PCT

PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/051016

International filing date (day/month/year)  
24.03.2005

Priority date (day/month/year)  
30.03.2004

International Patent Classification (IPC) or both national classification and IPC  
G02B3/14, G02B26/02

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS N.V.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
Fax: +31 70 340 - 3016

Authorized Officer

Quertemont, E

Telephone No. +31 70 340-3078



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/051016

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

---

**Box No. II Priority**

---

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☒ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/051016

---

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	2,7-10,15-23
	No: Claims	1,3,4,5,6,11,12,13,14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item II**

**Priority**

Reference is made to the following document :

D1: WO-A-2004027490

Document D1 (figure 15), having priority of 18.12.2002 and published on 01.04.2004, discloses the features of claim 1 and is therefore considered as a first application. Therefore the subsequent application GB0407233 cannot be considered as a first application in the sense of Article 8(2)(a) PCT for a valid claim of priority for claim 1. Hence the international filing date has been considered to be the relevant date for claim 1.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents :

D1 : WO-A-2004027490

D2 : WO-A-02099527

D3 : WO-A-03069380

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

2.2 The document D2 discloses (figure 3 ; the references in parentheses applying to this document) a switchable optical unit (a display cell 1) capable of controlling a beam of radiation (14) passing through an optically active portion of the unit (10), which unit comprises a chamber (13) and an electrically conductive liquid (aqueous color solution 4) contained in the chamber and having an index of refraction different from that of its surroundings (see page 3, line 34), the chamber being provided with an electrode configuration wherein application of a voltage, from a voltage control

system to electrodes causes movement of the said liquid (page 3, lines 12-24), whereby the electrode configuration comprises a pair of first, central, electrodes (these two electrodes forming the V-shaped electrode 5) fixed to the inner walls of the chamber at the position of the optically active portion (surface 12 on which incident light ray undergoes total reflection), second electrode means (6) fixed to the inner walls of the chamber at positions outside the optically active portion and a third electrode (7) in contact with the conductive liquid (4) and continuously connected to a first output of a voltage source, a second output of which is connected in a first mode to at least one of the first electrodes and in a second mode to the second electrode means.

- 2.3 Hence the subject-matter of claim 1 is not new (Article 33(2) PCT).
- 2.4 The applicant should be aware that subject-matter of claim 1 is also not new in the sense of Article 33(2) PCT with respect to the disclosure of document D1 (figure 15).
3. Dependent claims 3-6, 11-14 are not new (Article 33(2) PCT). For instance a hydrophobic layer is disclosed in D1 (figure 15). Document D1 also discloses nonperiodic phase structures (figures 10 and 12) and a second medium as a gas (page 28, lines 1-2).
4. Dependent claims 2, 7-10, 15-23 do not contain any features which appear, in combination with the features of any claim to which they refer, to involve an inventive step (Article 33(3) PCT) with respect to the disclosure of D2 or D3.

# PATENT COOPERATION TREATY

REC'D 26 JUL 2005

WIPO

PCT

PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/051016

International filing date (day/month/year)  
24.03.2005

Priority date (day/month/year)  
30.03.2004

International Patent Classification (IPC) or both national classification and IPC  
G02B3/14, G02B26/02

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS N.V.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
Fax: +31 70 340 - 3016

Authorized Officer

Quertemont, E

Telephone No. +31 70 340-3078



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/051016

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

---

**Box No. II Priority**

---

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
2. ☒ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:  
**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/051016

---

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	2,7-10,15-23
	No: Claims	1,3,4,5,6,11,12,13,14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

**2. Citations and explanations**

**see separate sheet**



**Re Item II**

**Priority**

Reference is made to the following document :

D1: WO-A-2004027490

Document D1 (figure 15), having priority of 18.12.2002 and published on 01.04.2004, discloses the features of claim 1 and is therefore considered as a first application. Therefore the subsequent application GB0407233 cannot be considered as a first application in the sense of Article 8(2)(a) PCT for a valid claim of priority for claim 1. Hence the international filing date has been considered to be the relevant date for claim 1.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents :

D1 : WO-A-2004027490  
D2 : WO-A-02099527  
D3 : WO-A-03069380

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
- 2.2 The document D2 discloses (figure 3 ; the references in parentheses applying to this document) a switchable optical unit (a display cell 1) capable of controlling a beam of radiation (14) passing through an optically active portion of the unit (10), which unit comprises a chamber (13) and an electrically conductive liquid (aqueous color solution 4) contained in the chamber and having an index of refraction different from that of its surroundings (see page 3, line 34), the chamber being provided with an electrode configuration wherein application of a voltage, from a voltage control

system to electrodes causes movement of the said liquid (page 3, lines 12-24), whereby the electrode configuration comprises a pair of first, central, electrodes (these two electrodes forming the V-shaped electrode 5) fixed to the inner walls of the chamber at the position of the optically active portion (surface 12 on which incident light ray undergoes total reflection), second electrode means (6) fixed to the inner walls of the chamber at positions outside the optically active portion and a third electrode (7) in contact with the conductive liquid (4) and continuously connected to a first output of a voltage source, a second output of which is connected in a first mode to at least one of the first electrodes and in a second mode to the second electrode means.

- 2.3 Hence the subject-matter of claim 1 is not new (Article 33(2) PCT).
- 2.4 The applicant should be aware that subject-matter of claim 1 is also not new in the sense of Article 33(2) PCT with respect to the disclosure of document D1 (figure 15).
3. Dependent claims 3-6, 11-14 are not new (Article 33(2) PCT). For instance a hydrophobic layer is disclosed in D1 (figure 15). Document D1 also discloses nonperiodic phase structures (figures 10 and 12) and a second medium as a gas (page 28, lines 1-2).
4. Dependent claims 2, 7-10, 15-23 do not contain any features which appear, in combination with the features of any claim to which they refer, to involve an inventive step (Article 33(3) PCT) with respect to the disclosure of D2 or D3.